

## TIME-BASED MODELING

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### ABSTRACT OF THE DISCLOSURE

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A computer-implemented modeling, or planning, system provides a graphical user interface including a timeframe. Under user control, instances of component objects representing modeling entities can be displayed with respect to the timeframe for the input of time-related properties for the component objects. The  
10 component objects provide calculations in response to the time-related properties on properties of the component object for deriving an output comprising a time-series of output values. A resulting report can be generated based on the time-series of output values. The displayed instances of the component objects can be directly manipulated by the user in order to define the time-related properties. The direct  
15 graphical representation facilitates planning operations and enables accurate, rapid and easily understandable development of plans. Multiple scenarios can easily be generated using the system. A revision mechanism facilitates the return to a scenario modeled earlier.